

REMARKS

Claims 2-4, 6-8, and 10-12 are pending in this application. Claims 2-4, 6-8, and 10-12 stand rejected. In light of the remarks set forth below, Applicant respectfully submits that each of the pending claims is in immediate condition for allowance.

Claims 2-4, 6-8, and 10-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over EP 899,559 ("Nozaki") in view of U.S. Patent No. 5,917,934 ("Chiu"). Applicant respectfully requests reconsideration and withdrawal of this rejection.

To establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify a reference or combine references to arrive at the claimed subject matter. The prior art references must also teach or suggest all the limitations of the claim in question. See, M.P.E.P. § 706.02(j). A reference can only be used for what it clearly discloses or suggests. See, In re Hummer, 113 U.S.P.Q. 66 (C.C.P.A. 1957); In re Stencel, 4 U.S.P.Q.2d 1071, 1073 (Fed. Cir. 1987). Here, the references, whether taken individually or in combination, do not disclose or suggest the invention claimed by the Applicant.

The Office Action acknowledges that the Nozaki reference fails to disclose "calculation of the pattern width for said inspected pattern for the reference data at the corresponding position by treating the number obtained by

dividing said grey level by the grey level step count as the width of the pattern developed in that pixel." This feature is not shown in the Chiu reference either.

In Chiu, according to a first embodiment disclosed at column 14, lines 14, et seq., width is determined utilizing a width calculating device which stores at least one set of edge point coordinates and calculates the distance between the stored coordinates and a subsequent set of edge point coordinates which identify the location of an adjacent edge. In other words, this width calculation is performed utilizing a first known edge and a subsequent edge location. This is unlike Applicant's explicitly recited limitation of calculation of the pattern width for said inspection pattern and for the reference data at the position at the corresponding position by treating the number obtained by dividing said grey level by the grey level step counter as the width of the pattern developed in that pixel.

Chiu discloses, at column 20, lines 16-31, a second embodiment where a size estimator measures the height of a pair of blobs and determines the center of each of the blobs. The heights are averaged to produce an average height value. The distance between the two centers is then calculated to produce a width value. Again, this is not the calculation of the pattern width explicitly recited in Applicant's claim.

A third method is disclosed in Chiu at column 20, lines 41-56. To estimate the size of an etched defect in a pair of blobs. Specifically, the light intensity for each pixel is considered to be proportional to the amount of the corresponding sensor image area that images a portion of the aperture grill. The area imaged by a pixel equals the pixel's light intensity value divided by the

saturated intensity value. The area of slit imaged by a pixel equals the pixel's light intensity value divided by the saturated intensity value which is then subtracted from 1. As such, it is the comparison between two individual blobs which determines the area for each blob. Again, this is not the calculation of the pattern width explicitly recited in Applicant's claim where the grey level is divided by the grey level step count at the width.

Further, the Office Action recognizes that Chiu does not explicitly disclose that the size is calculated by dividing light intensity by the saturated light intensity is the width, but asserts that the width can be determined from the size valued. However, the end result of Chiu is an estimate of the size of a potential etch defect. See, Office Action at 4; Chiu, col. 20, Ins. 41-56. One would have to modify the teaching in Chiu and then combine it with Nozaki to arrive at Applicant's invention. As such, the proposed combination fails.

In contrast, Applicant explicitly recites calculation of the pattern width of the inspected pattern. The pattern width is not estimated but an actual calculation of the width. As such, Norizaki and Chiu fail to disclose Applicant's explicitly recited limitations. Applicant respectfully requests reconsideration and withdrawal of the rejection and allowance of the pending claims.

Applicant has responded to all of the rejections and objections recited in the Office Action. Reconsideration and a Notice of Allowance for all of the pending claims are therefore respectfully requested.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly,

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the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

If the Examiner believes an interview would be of assistance, the Examiner is welcome to contact the undersigned at the number listed below.

Dated:

Respectfully submitted,

By 

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